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VIA EMAIL ONLY

July 24, 2017

California Public Utilities Commission
Energy Division
505 Van Ness Avenue
San Francisco, CA 94102

RE: I.17-02-002: TURN Informal Comments on Update to the Scenarios Framework

Dear Energy Division Staff:

Pursuant to the *Administrative Law Judge's Ruling Requesting Informal Feedback on Energy Division's Updated Proposed Phase 1 Scenarios* of June 15, 2018 ("Ruling"), TURN offers the following informal comments on the Energy Division's (ED's) *Update to the Scenarios Framework* ("Framework"), which was attached to the Ruling. TURN appreciates the substantial additional development of the Framework that ED has undertaken since last year and believes the Framework should be useful to evaluating the reliability and cost issues posed by the loss of some or all of the gas storage capabilities of the Aliso Canyon natural gas storage facility.[1] TURN offers limited comments on the Framework below, addressing some of the specific questions posed by staff in the Framework document.

[1] TURN refers to the loss of the various gas storage services that have been provided by the Aliso Canyon natural gas storage facility in these comments using shorthand terms such as "loss of Aliso Canyon".

Hydraulic Modeling:

TURN offers no additional comments on the Framework's proposed Hydraulic Modeling.

Production Cost Modeling:

TURN offers the following responses to the Framework's questions regarding Production Cost Modeling.

1. *Are the inputs described above appropriate for use in the model as described?*
2. *Is the proposed time horizon appropriate?*
3. *Are LOLE and total production costs good measures of reliability and cost respectively?*

Response to Questions 1-3: The Framework is generally reasonable as to the issues raised in Questions 1 to 3 above. TURN notes that "production costs" to be reported by production cost models may be good directional indicators of the impact of costs of various policies, but that substantial additional effort would be required to convert such cost impacts to impacts on utility revenue requirements

4. *Are increased startup times and startup profiles and decreased ramp rates the best way to simulate the effect on flexibility in dispatch from electric generation resulting from the more distant gas delivery when Aliso Canyon is unavailable?*

Response: TURN doubts strongly whether reducing the capabilities of individual units is the best means for assessing the impact of gas delivery constraints on such units' operations. Instead, TURN suggests that units' capabilities not be reduced, but that a general gas delivery constraint be imposed on the collection of units affected by the loss of Aliso Canyon.[2] The Framework's discussion of "Rule 23" curtailments bridging pages 21-22 suggests that the SERVM model ED uses has such capabilities.

5. *What is the best methodology to translate hourly electric generation over a year into the 1 in 10 and 1 in 35 design standard gas demand levels needed for hydraulic modeling? Is probability weighted hourly average for weekdays in the month the appropriate method?*

[2] See also the informal comments TURN provided July 24, 2017, pp. 7-8.

Response: TURN interprets this question as asking whether estimated hourly electric generation (EG) gas demands over the course of a year could be used to develop estimates of the electric generation portion of the "1 in 10" and "1 in 35" levels of total gas demand during peak conditions. TURN recognizes there may be statistical techniques that could be used to develop such estimates based on a year's worth of estimated hourly EG gas demands. However, TURN recommends ED also consider using SERVM to estimate EG gas demands by simulating a smaller interval (such as a day or week) using electric load inputs that correspond to "1 in 10" and "1 in 35" weather conditions used for gas system planning. In other words, TURN is concerned that translating "hourly" EG gas demand based on peak day electricity demands into a "standard gas demand level" may overestimate the impact of EG load on peak day gas demand.

6. *Are there any other questions that should be considered?*

Response: TURN is not posing any other questions at this time.

Economic Modeling:

TURN first offers the following general observation regarding the Framework's proposed Economic Modeling:

- Under the Framework, ED would develop interesting and potentially valuable analysis pursuant to the four major tasks described under Economic Modeling. These measures may provide directional indications regarding the impact on costs and "order of magnitude" levels of such impacts. However, it is not clear from the proposal how such information would be used. In particular, it is not clear how the proposed analyses – except for that anticipated in Part 3 – could actually be used to estimate customer rate impacts.
- The word "algorithm" near the bottom of page 25 should be "logarithm".
- The discussion of the computation of "implied heat rates" at pp. 38-40 should address if and how such implied heat rates will also consider the impact of the CAISO's Greenhouse Gas (GHG) bidding and pricing rules. If such computations will not reflect such GHG bidding and pricing, the methodology should explain why it will not.

TURN also offers the following responses to the Framework's questions regarding production cost modeling.

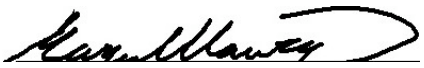
1. *Are the proposed modeling dates reasonable?*
2. *Are the proposed Aliso inventory levels appropriate?*
3. *Is it reasonable to model low, mid, and high forecasts of natural gas prices*

Response to Questions 1-3: The various proposals raised in questions 1-3 are reasonable or appropriate.

4. *Is there an existing gas price forecast dataset that would be appropriate to use in this model?*
5. *Are there any other inputs or assumptions that should be considered?*
6. *Are there any other questions that should be considered?*

Response to Questions 4-6: TURN offers no opinions on questions 4-6 at this time.

Sincerely,



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Cc: Service List for I.17-02-002
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